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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,074	03/07/2000	Anthony S. Camarota		9150

7590 07/18/2002

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EXAMINER	
ANTHONY, JOSEPH DAVID	
ART UNIT	PAPER NUMBER
1714	4

DATE MAILED: 07/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF=4

Office Action Summary	Application No. 09/521,074	Applicant(s)
	Examiner	Group Art Unit 1714

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-12 is/are pending in the application.

Of the above claim(s) 7-11 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-6 AND 12 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-6, and 12, drawn to a flame retarding and smoke suppressing additive powder, classified in class 252, subclass 602.

   II. Claims 7-77, drawn to a resin composition containing said powder, classified in class 524, subclass 1+.

2. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as mutually exclusive inventions in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product, and the inventions are patentably distinct. In the instant case, the intermediate product is deemed to be useful as a coating agent for a metal substrate and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Anthony Camarota on 3/7/02 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-6 and 12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Oath/Declaration

7. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It was not executed in accordance with either 37 CFR 1.66 or 1.68. Please note that inventor Kevin Schell has not signed the declaration.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-6 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in regards to the metes and bounds of the concentration ranges for the various components since various components can overlap each other in function. As an example, the "heat activated halogen material" can also function as a "heat activated blowing agent" as well as a "carbonific material", see page 7, line 15 to page 8, line 3. As another example, the "heat activated blowing agent" can function as a "carbonific material".

Claims 1 and 12 are indefinite because the listed percentage concentration ranges are given without units. Are the concentrations ranges by weight or by volume?

Claim 1 is indefinite because in line 7 of the claim it is deemed that after the word "phosphorous" the word --acid-- needs to be inserted.

Claim 2 is indefinite because in line 1 there are two occurrences of the words "carbonific material". One of these occurrences must be deleted.

Claim 12 is indefinite because the claim uses improper markush claim language to define the individual components. Proper markush claim language is --selected from the group consisting of--. The last members of the markush grouping needs to be separated by an --and-- and not by "or".

Claim 12 is indefinite because in lines 6-7 of the claim the numbers are given without and units and percentage symbol.

Claim 12 is indefinite because it is deemed that the number "19.0" should be the number --17.0-- instead.

Claim 12 is indefinite in line 13 since the semi-colon after the word "phosphate" should be replaced by a comma.

Claims 3-6 are being rejected here because they contain all the limitations of the dependent claim(s) from which they depend, and these said dependent claims are rejected for the reasons given above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vajs et al. U.S. Patent Number 4,743,625 or Wortmann et al. U.S. Patent Number 4,166,743.

Vajs et al and Wortmann et al both disclose powder intumescent fire retardant mixtures that comprise: 1) a carbonific material, such as pentaerythritol, 2) a heat activated blowing agent, such as dicyandiamide, 3) a phosphorous material, such as ammonium polyphosphate or monoammonium or diammonium phosphate, 4) chlorinated paraffin, 5) inorganic binders, such as vitrifying materials, see column 4, lines 43-50 and claims 7-14 of Vajs et al., and column 2, lines 26-38 and examples 1-5, 7, and 9 of Wortmann et al..

Vajs et al and Wortmann et al both differ from applicant's claimed invention in that there is no direct teaching (i.e. by way of an example) to an intumescent powder mixture that actually comprises all of applicant's claimed components within applicant's claimed concentration ranges.

It would have been obvious to one having ordinary skill in the art to use the individual disclosures of Vajs et al and Wortmann et al as motivation to actually make intumescent powder

mixtures that contain all of applicant's claimed components that are within applicant's claimed concentration ranges. This is obvious because applicant's claimed concentration ranges are deemed to fall within the individual broad disclosures of the components as set forth in the Vajs et al and Wortmann et al patents. In any case, it is well established by the courts that where the general conditions of the claims are disclosed in the prior-art, it is not inventive to discover optimum or workable ranges (i.e concentration, temperature, pH etc.) by routine experimentation, absent evidence of unexpected results.

Prior-Art Cited But Not Applied

12. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (703) 308-0446. This examiner can normally be reached on Monday through Thursday from 7:35 a.m. to 6:00 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The group **(non-after final)** FAX machine number is (703) 872-9310. The group **(after final)** FAX machine number is (703) 872-931. Unofficial correspondence transmitted by FAX must be marked "DRAFT". All other

papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0651. The receptionist is located on the 8th floor of Crystal Plaza 3 (e.g. CP-3) and will be the welcome point for all visitors to the building.

Joseph D. Anthony

Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

7/15/02